

REMARKS

Claims 1 and 3–14 are pending in this application. By this Amendment, claim 1 is amended to incorporate the subject matter of claim 2, and claim 2 is canceled. Claims 3–7 and 9 are amended to correct their dependencies due to the cancellation of claim 2. No new matter is added.

In view of the foregoing amendments and following remarks, reconsideration and allowance are respectfully requested.

I. Rejections Under 35 U.S.C. §103

A. Misselbrook in view of Becher

The Office Action rejects claims 1 and 6–14 under 35 U.S.C. §103(a) over U.S. Patent No. 4,511,395 to Misselbrook ("Misselbrook") in view of U.S. Patent No. 6,908,882 to Becher et al. ("Becher"). By this Amendment, claim 1 is amended to incorporate the subject matter of non-rejected claim 2. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Suzuki in view of Tanaka

The Office Action rejects claims 1–7 under 35 U.S.C. §103(a) over U.S. Patent No. 5,523,276 to Suzuki et al. ("Suzuki") in view of U.S. Patent No. 4,701,210 to Tanaka et al. ("Tanaka"). By this Amendment, claim 2 is cancelled, rendering its rejection moot. As to the remaining claims, Applicants respectfully traverse the rejection.

As discussed in Applicants' specification, an object of the disclosed invention is to provide an agricultural and horticultural water dispersible granule having excellent underwater disintegrability and dispersibility without phytotoxicity, even when using an agricultural chemical compound having a melting or softening point equal to or below 70°C, from which it was thought to be difficult to produce water dispersible granules. *See* page 2, line 4 to page 3, line 4. In other words, the object of the present invention is to improve water

dispersible granules in physical ways. For this improvement, the salts of N-acylamino acids are used.

Suzuki and Tanaka neither suggest nor teach how to obtain water dispersible granules having excellent underwater disintegrability and dispersibility without phytotoxicity, even when using an agricultural chemical compound having a melting or softening point equal to or below 70°C or discuss other physical properties, other than herbicidal effects (col. 1, lines 34-39 in Suzuki; col. 1, lines 11-13 in Tanaka).

In addition, Applicants' specification discloses that the salt of N-acylamino acid is used as a dispersant of the water dispersible granule and specific examples include "Amisoft" (see page 6, line 21 to page 7, line 22), which is an anionic surfactant derived from L-glutamic acid and coconut oil fatty acid. Amisoft is used in the field of hair-care and skin care and has broadly been known as a safe surfactant for skin or hair because of its suitable foamability, mild foaming qualities, hypoallergenic qualities, and mild nonirritation.

In contrast, Tanaka discloses a salt of N-acylamino acid, which is synthesized from L-glutamic acid and phenoxy acetyl acetic acid, which has herbicidal activity (see col. 1, lines 11-13).

Therefore, one of ordinary skill in the art would not have tried to combine the teachings of Suzuki and Tanaka to obtain compounds having the physical properties described above, with a reasonable expectation of success, because the references make no mention on how to obtain such properties.

For at least this reason, claim 1 would not have been rendered obvious by Suzuki and Tanaka. Claims 3-7 depend from claim 1 and, thus, also would not have been rendered obvious by Suzuki and Tanaka. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

C. Ogawa in view of Tanaka

The Office Action rejects claims 1–3 and 5–8 under 35 U.S.C. §103(a) over U.S. Patent No. 5,945,114 to Ogawa et al. ("Ogawa") in view of Tanaka. By this Amendment, claim 2 is cancelled, rendering its rejection moot. As to the remaining claims, Applicants respectfully traverse the rejection.

The Office Action, at page 11, states that "Ogawa et al. teach a water-dispersible granule comprising a pesticide having a melting point not more than 70°C, a carrier and a surface-active agent, and the granule has superior physical properties, i.e., disintegration-in-water, dispersibility, suspensibility, and storage stability...."

However, Ogawa discloses a water dispersible granule that is obtained by granulating a mixture comprising a pyrethroid insecticide having a melting point of not more than 70°C, a calcined product of precipitated hydrated silicon dioxide, and a surface active agent, where the calcined product of precipitated hydrated silicon dioxide is obtained by calcining synthetic precipitated hydrated silicon dioxide, for example, Tokusil®, Carplex®, Nipsil®, Ultrasil®, etc., at 700°C to 900°C, and more preferable 800°C to 900°C. Ogawa also discloses that commercially available calcined silica, Carplex® CS-5, Carplex® CS-7, etc., may be used (see col. 2, lines 1-10).

Therefore, Ogawa discloses a water dispersible granule requiring a calcined product of a precipitated hydrated silicon dioxide of a particular carrier, not an inclusive carrier, to obtain the effects of disintegration-in-water and suspensibility.

The Office Action also states "Ogawa et al. further teach that mineral carrier, i.e. clays, diatomite or attapulgite, can be included in the water dispersible granule."

However, Ogawa et al. discloses that the mineral carrier, i.e., clays, diatomite, or attapulgite may be added in mixing the pesticide, calcined product of precipitated hydrated silicon dioxide, and a surface active agent (see col. 3, lines 3-13). This means that these

mineral carriers are used with a calcined product of precipitated hydrated silicon dioxide and does not mean that the material carriers are used as a carrier instead of a calcined product of precipitated hydrated silicon dioxide.

In addition, when the above material carriers are used as a carrier instead of a calcined product of precipitated hydrated silicon dioxide, it is obvious from Comparative Example 1 of Ogawa that the superior effects of disintegration-in-water and suspensibility cannot be obtained, wherein it demonstrates that Carplex® #80 of non-calcined silicon is used to produce water dispersible granules and the water dispersible granules do not provide the superior effects of disintegration-in-water and suspensibility (see Tables 1 and 2).

As explained above, one of skill in the art would not have been able to anticipate the effects due to an inclusive carrier with a reasonable expectation of success.

Regarding Tanaka, it discloses an N-substituted glutamic acid derivative exhibiting strong herbicidal activity, as stated in the Office Action, but it fails to provide any teachings that would have led one of skill in the art to modifications that would lead to other, expected physical properties.

In contrast, the adsorbent carrier of the present invention includes synthetic noncrystalline silicas, diatomaceous earths, zeolites, attapulgites, acid clays, and the like, and the examples of synthetic noncrystalline silicas include Carplex® #80, which is the same compound used in Comparative Example 1 of Ogawa. In Example 14 of Applicants' specification, Carplex® #80 is used to produce a water dispersible granule and all characteristics of underwater disintegrability, suspensibility, and dispersibility of the water dispersible granules were good or excellent (Table 1).

The above result shows that the claimed invention provide excellent effects due to a combination of an adsorbent carrier and a salt of an N-acylamino acid, regardless of the adsorbent carrier used, that are unexpected over the teachings of the applied references.

Therefore, one of ordinary skill in the art would not have had a reasonable expectation of successfully obtaining the claimed compounds that exhibit the above-discussed properties by combining Ogawa, which does not disclose any effects attributable to an inclusive carrier, and Tanaka, which discloses effects that are different from the effects of the present invention.

Claim 1 would not have been rendered obvious by Ogawa and Tanaka. Claims 3 and 5–8 depend from claim 1 and, thus, also would not have been rendered obvious by Ogawa and Tanaka. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the application are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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